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Technical Datasheet

Mini - Secure Digital Card

		SD-Mode			SPI-Mode	
Pin	**Name**	**IO type 1**	**Description**	**Name**	**IO Type**	**Description**
1	CD/ DAT3[2]	I/O /PP[3]	Card Detect/Data Line [Bit 3]	CS	I	Chip Select (Active Low)
2	CMD	PP	Command/Response	DI	I	Data In
3	VSS[1]	S	Supply Voltage Ground	VSS	S	Supply Voltage Ground
4	Vdd	S	Supply Voltage	Vdd	S	Supply Voltage
5	CLK	I	Clock	SCLK	I	Clock
6	VSS[2]	S	Supply Voltage Ground	VSS[2]	S	Supply Voltage Ground
7	DAT0	I/O /PP	Data Line (Bit 0)	DO	O/PP	Data Out
8	DAT1	I/O /PP	Data Line (Bit 1)	RSV		
9	DAT2	I/O /PP	Data Line (Bit 2)	RSV		
10	NC[4]	I/O /PP	For Future Use	NC		For Future Use
11	NC[4]	I/O /PP	For Future Use	NC		For Future Use

1. S: Power supply / I: input / O: Output using push-pull drivers / PP: I/= using push-pull drivers
2. The extended DAT Lines (Dat1-Dat3) are input on power up. They start to operate as Dat lines after SET_BUS_WIDTH command. The Host shall keep its own Dat1-Dat3 lines in input mode, as well, while they are not used. It is defined so, in order to keep compatibility to MultiMedia Cards.
3. After power up this line is input with 50Kohm pull-up (can be used for card detection or SPd mode selection). The pull-up should be diconnected by user,during regular data transfer, with SET_CLR_CARD_Detect (ACMD42) command.
4. NC

Storage Capacities:	
Item	**Description**
Physical Dimension Specifications (Units in mm)	Type Measurement Length 21,5mm+/- 0,1mm Width 20,0mm+/- 0,08mm Thickness 1,4mm+/- 0,1mm Weight 1,0g max.
Power Consumption	Read: <30mA Write: <30mA Standby: <100uA
Performance	MTBF: 1,000,000 h Data Transfer Rate up to 160x Sustained Read up to 40x Sustained Write up to 30x * Depending on system config.
Env. Specs.	Temperature Operating -10°C to 55°C Humidity Operating 8% to 95%, non-condensing Vibration Operating 15G peak-to-peak Max. Operating 40G @11ms.

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